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Robert C. Kowert
Conley, Rose & Tayon PC
PO Box 398
Austin, TX 78767-0398

EXAMINER	
LAZARO, DAVID R	

ART UNIT	PAPER NUMBER
2155	9

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/693,682	SLAUGHTER ET AL.	
	Examiner	Art Unit	
	David Lazaro	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-75* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-75* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5,6,7*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claims 1-75 are pending in this Office Action.

Papers Received

1. Request for Corrected Filing Receipt received on 01/02/01.

2. Power of Attorney and Revocation of previous powers was received on 06/11/01. Notice of acceptance was sent on 06/18/01.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 07/30/01, 08/13/01, and 09/10/01 have been considered by the Examiner.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-21, 30-49, 52-69 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,434,605 by Faulkner et al. (Faulkner) in view of "Behavioural Specification Using XML" by Mckee and Marshall and published by IEEE (M&M).

6. With respect to Claim 1, Faulkner teaches in a distributed computing environment (Col. 5 lines 49-58) a first message from an ordered set of messages receivable by a destination is verified for proper sequence and sent if in sequence or not sent if not in sequence (Col. 3 lines 28-33). Faulkner does not explicitly describe the communications through data representation language and the ordered set of messages and their associated sequence being described in a data representation language schema. However, it is well known in the art that in a distributed computing environment using data representation language communications, a data representation language schema can describe any proper sequences in order to insure a service can be accessed and used as intended as shown by M&M (Page 54 1st paragraph and sections 3 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Faulkner and modify it as indicated by M&M where a method for communicating in a distributed computing environment, comprises: receiving a first message in a data representation language from a first source to be sent to a destination, wherein the first message is one of an ordered set of messages receivable by the destination and described in a data representation language schema; verifying a sequence of the first message in the ordered set of messages receivable by the destination according to the data representation language schema; sending the first message to the destination if the first message is in sequence; and not sending the first message to the destination if the first message is not in sequence. One would be motivated to have this since using a data

representation language schema does not confine the message sequence model to a proprietary language or a set vocabulary (Page 54, 1st 3 bullets).

7. It must be noted that Claims 2-17 are rejected based on the same rationale used in the rejection of Claim 1.

8. With respect to Claim 2, Faulkner in view of M&M teaches all the limitations of Claim 1 and further teaches notifying the first source if the first message is not in sequence (Col. 3 lines 23-27 of Faulkner).

9. With respect to Claim 3, Faulkner in view of M&M teaches all the limitations of Claim 2 and further teaches the first source resending the first message in response to said notifying (Col. 3 lines 54-63 of Faulkner).

10. With respect to Claim 4, Faulkner in view of M&M teaches all the limitations of Claim 1 and further teaches said receiving a first message, said verifying a sequence, and said sending the first message are performed by a message conductor configured to send messages in sequence to the destination according to the data representation language schema (Col. 3 lines 58-60 of Faulkner).

11. With respect to Claim 5, Faulkner in view of M&M teaches all the limitations of Claim 4 and further teaches the source is a client in the distributed computing environment and the destination is a service accessible through the distributed computing environment (Col. 3 lines 40-47 and Col. 5 lines 25-48 of Faulkner).

12. With respect to Claim 6, Faulkner in view of M&M teaches all the limitations of Claim 5 and further teaches a client device comprises the message conductor and the client (Col. 3 lines 33-47 of Faulkner).

13. With respect to Claim 7, Faulkner in view of M&M teaches all the limitations of Claim 6 and further teaches the service providing the message conductor to the client device (Page 53,.Section 1, 1st paragraph).

14. With respect to Claim 8, Faulkner in view of M&M teaches all the limitations of Claim 5 and further teaches a service device comprises the message conductor and the service (Col. 3 lines 33-47 of Faulkner).

15. With respect to Claim 9, Faulkner in view of M&M teaches all the limitations of Claim 1 and further teaches said receiving a first message and said verifying a sequence are performed by, a message conductor configured to verify the sequence of messages according to the data representation language schema, and wherein said sending the first message is performed by a message endpoint configured to send messages to the destination (Col. 3 lines 28-47 of Faulkner).

16. With respect to Claim 10, Faulkner in view of M&M teaches all the limitations of Claim 9 and further teaches the message conductor sending the first message to the message endpoint if the first message is in sequence (Col. 3 lines 39-43 of Faulkner).

17. With respect to Claim 11, Faulkner in view of M&M teaches all the limitations of Claim 9 and further teaches the source is a client in the distributed computing environment and the destination is a service accessible through the distributed computing environment (Col. 3 lines 40-47 of Faulkner).

18. With respect to Claim 12, Faulkner in view of M&M teaches all the limitations of Claim 11 and further teaches the service providing the message conductor o the client device (Col. 3 lines 33-47 of Faulkner).

19. With respect to Claim 13, Faulkner in view of M&M teaches all the limitations of Claim 1 and further teaches the destination is a service accessible through the distributed computing environment and configured to provide resources to clients in the distributed computing environment in response to data representation language messages received from the clients (Col. 1 lines 13-17 of Faulkner), and wherein the first source is a first client of the service in the distributed computing, environment (Col. 3 lines 33-47 of Faulkner).

20. With respect to Claim 14, Faulkner in view of M&M teaches all the limitations of Claim 1 and further teaches receiving a plurality of messages in the data representation language from a plurality of sources to be sent to the destination, wherein the plurality of messages are each from the ordered set of messages receivable by the destination and described in the data representation language schema; verifying a sequence of the plurality of messages in the ordered set of messages receivable by the destination according to the data representation language schema (Page 54 1st paragraph and sections 3 and 4); sending a second message of the plurality of message to the destination if the second message is in sequence; and not sending the second message to the destination if the second message is not in sequence (Col. 3 lines 28-63 of Faulkner).

21. With respect to Claim 15, Faulkner in view of M&M teaches all the limitations of Claim 1 and further teaches the source is a client in the distributed computing environment and the destination is a service accessible through the distributed computing environment, the method further comprising: receiving the data

representation language schema, wherein the data representation language schema defines a message sequence interface for accessing the service; and generating a message conductor for the client according to the data representation language schema (Page 54 1st paragraph and sections 3 and 4), wherein said receiving a first message and said verifying a sequence are performed by the message conductor for the client (Col. 3 lines 28-33).

22. With respect to Claim 16, Faulkner in view of M&M teaches all the limitations of Claim 15 and further teaches receiving the representation language schema of the service in a service advertisement of the service (Page 53, Section 1, 1st Paragraph, and Page 58, Section 7).

23. With respect to Claim 17, Faulkner in view of M&M teaches all the limitations of Claim 1 and further teaches the data representation language is eXtensible Markup Language (XML).

24. With respect to Claim 18, Faulkner teaches in a distributed computing environment (Col. 5 lines 49-58) receiving a plurality of request messages from a first source to be sent to a destination (Col. 3 lines 54-60), wherein the plurality or request messages are an ordered set of messages receivable by the destination (Col. 3 lines 54-60), verifying a sequence of the first message in the ordered set of messages receivable by the destination (Col. 3 lines 28-33), send the first message to the destination if the first message is in sequence; and not send the first message to the destination if the first message is not in sequence (Col. 3 lines 54-63). Faulkner does not explicitly describe the communications through data representation language and

the ordered set of messages and their associated sequence being described in a data representation language schema. However, it is well known in the art that in a distributed computing environment using data representation language communications, a data representation language schema can describe any proper sequences in order to insure a service can be accessed and used as intended as shown by M&M (Page 54 1st paragraph and sections 3 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Faulkner and modify it as indicated by M&M where a method for communicating in a distributed computing environment, comprises: receiving a plurality of request messages in a data representation language from a first source to be sent to a destination, wherein the plurality of request messages are an ordered set of messages receivable by the destination and described in a data representation language schema; verifying a sequence of the plurality of request messages receivable by the destination according to the data representation language schema; and sending the plurality of request messages in sequence to the destination.. One would be motivated to have this since using a data representation language schema does not confine the message sequence model to a proprietary language or a set vocabulary (Page 54, 1st three bullets).

25. It must be noted that Claims 19-30 are rejected based on the same rationale used in the rejection of Claim 18.

26. With respect to Claim 19, Faulkner in view of M&M teaches all the limitations of Claim 18 and further teaches the source is a client in the distributed computing

environment and the destination is a service accessible through the distributed computing environment, wherein the plurality of request messages include information requesting the service to perform one or more functions on behalf of the client (Page 53, Section 1 "Introduction" 1st paragraph).

27. With respect to Claim 20, Faulkner in view of M&M teaches all the limitations of Claim 19 and further teaches the service performing the one or more functions as specified by the plurality of request messages, wherein said performing the one or more functions generates results data (inherent in Page 53, Section 1 "Introduction" 1st paragraph).

28. With respect to Claim 21, Faulkner in view of M&M teaches all the limitations of Claim 20 and further teaches sending the results data to the client in one or more response messages (inherent in Page 53, Section 1 "Introduction" 1st paragraph) in the data representation language (Page 53, Section 2).

29. With respect to Claim 30, Faulkner in view of M&M teaches all the limitations of Claim 18 and further teaches the data representation language is eXtensible Markup Language (XML) (Page 53-54 Section 2).

30. With respect to Claim 31, Faulkner teaches a device, comprising:
a processor; a memory coupled to said processor (Col. 5 lines 25-35); a message conductor unit (Col. 3 lines 34-46) configured to: receive a first message from a first source to be sent to a destination (Col. 3 lines 54-60), wherein the first message is one of an ordered set of messages receivable by the destination (Col. 3 lines 54-60), verify a sequence of the first message in the ordered set of messages receivable by the

destination, send the first message to the destination if the first message is in sequence; and not send the first message to the destination if the first message is not in sequence (Col. 3 lines 54-63). Faulkner does not explicitly describe the communications through data representation language and the ordered set of messages and their associated sequence being described in a data representation language schema. However, it is well known in the art that in a distributed computing environment using data representation language communications, a data representation language schema can describe any proper sequences in order to insure a service can be accessed and used as intended as shown by M&M (Page 54 1st paragraph and sections 3 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Faulkner and modify it as indicated by M&M where a device comprises a processor; a memory coupled to said processor; a message conductor unit configured to: receive a first message in a data representation language from a first source to be sent to a destination, wherein the first message is one of an ordered set of messages receivable by the destination and described in a data representation language schema; verify a sequence of the first message in the ordered set of messages receivable by the destination according to the data representation language schema; send the first message to the destination if the first message is in sequence; and not send the first message to the destination if the first message is not in sequence. One would be motivated to have this since using a data representation language schema does not confine the message sequence model to a proprietary language or a set vocabulary (Page 54, 1st 3 bullets).

31. It must be noted that Claims 32-45 are rejected based on the same rationale used in the rejection of Claim 31.

32. With respect to Claim 32, Faulkner in view of M&M teaches all the limitations of Claim 31. Claim 32 is further rejected on the similar basis of Claim 2's rejection.

33. With respect to Claim 33, Faulkner in view of M&M teaches all the limitations of Claim 32. Claim 33 is further rejected on the similar basis of Claim 3's rejection.

34. With respect to Claim 34, Faulkner in view of M&M teaches all the limitations of Claim 31. Claim 34 is further is rejected on the similar basis of Claim 5's rejection.

35. With respect to Claim 35, Faulkner in view of M&M teaches all the limitations of Claim 34. Claim 35 is further is rejected on the similar basis of Claim 6's rejection.

36. With respect to Claim 36, Faulkner in view of M&M teaches all the limitations of Claim 35. Claim 36 is further is rejected on the similar basis of Claim 7's rejection.

37. With respect to Claim 37, Faulkner in view of M&M teaches all the limitations of Claim 34. Claim 37 is further is rejected on the similar basis of Claim 8's rejection.

38. With respect to Claim 38, Faulkner in view of M&M teaches all the limitations of Claim 31 and further teaches the device further comprising a message endpoint, wherein in said sending the first message to the destination, the message conductor is further configured to send the first message to the message endpoint, wherein the message endpoint is configured to send the first message to the destination for the message conductor (Col. 3 lines 34-46 of Faulkner).

39. With respect to Claim 39, Faulkner in view of M&M teaches all the limitations of Claim 38 and further teaches the source is a client process in the distributed computing

environment and the destination is a service accessible through the distributed computing environment, and wherein the device comprises the message conductor, message endpoint, and client process (Col. 3 lines 34-46 of Faulkner).

40. With respect to Claim 40, Faulkner in view of M&M teaches all the limitations of Claim 39 and further teaches the service is configured to provide the message conductor to the device (Page 53, Section 1, 1st paragraph).

41. With respect to Claim 41, Faulkner in view of M&M teaches all the limitations of Claim 31. Claim 41 is further rejected on the similar basis of Claim 13's rejection.

42. With respect to Claim 42, Faulkner in view of M&M teaches all the limitations of Claim 31. Claim 42 is further rejected on the similar basis of Claim 14's rejection.

43. With respect to Claim 43, Faulkner in view of M&M teaches all the limitations of Claim 31 and further teaches the source is a client process in the distributed computing environment and the destination is a service accessible through the distributed computing environment, wherein the device is configured to: receive the data representation language schema, wherein the data representation language schema defines a message sequence interface for accessing the service; and generate a message conductor for the client according to the data representation language schema (Page 54 1st paragraph and sections 3 and 4).

44. With respect to Claim 44, Faulkner in view of M&M teaches all the limitations of Claim 43. Claim 44 is further rejected on the similar basis of Claim 16's rejection.

45. With respect to Claim 45, Faulkner in view of M&M teaches all the limitations of Claim 31. Claim 45 is further rejected on the similar basis of Claim 17's rejection.

46. With respect to Claim 46, Faulkner teaches a device, comprising: a processor; a memory coupled to said processor (Col. 5 lines 25-35); a service interface unit (Col. 3 lines 34-46) configured to: receive a plurality of request messages from a first source to be sent to a destination (Col. 3 lines 54-60), wherein the plurality or request messages are an ordered set of messages receivable by the destination (Col. 3 lines 54-60), verify a sequence of the first message in the ordered set of messages receivable by the destination (Col. 3 lines 28-33), send the first message to the destination if the first message is in sequence; and not send the first message to the destination if the first message is not in sequence (Col. 3 lines 54-63). Faulkner does not explicitly describe the communications through data representation language and the ordered set of messages and their associated sequence being described in a data representation language schema. However, it is well known in the art that in a distributed computing environment using data representation language communications, a data representation language schema can describe any proper sequences in order to insure a service can be accessed and used as intended as shown by M&M (Page 54 1st paragraph and sections 3 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Faulkner and modify it as indicated by M&M where a device comprises a processor; a memory coupled to said processor; a service interface unit configured to: receive a plurality of request messages in a data representation language from a first source to be sent to a destination, wherein the plurality of request messages are an ordered set of messages receivable by the destination and described in a data representation language schema; verify a sequence

of the plurality of request messages receivable by the destination according to the data representation language schema; and send the plurality of request messages in sequence to the destination. One would be motivated to have this since using a data representation language schema does not confine the message sequence model to a proprietary language or a set vocabulary (Page 54, 1st 3 bullets).

47. It must be noted that Claims 47-57 are rejected based on the same rationale used in the rejection of Claim 46.

48. With respect to Claim 47, Faulkner in view of M&M teaches all the limitations of Claim 46. Claim 47 is further rejected on the similar basis of Claim 19's rejection.

49. With respect to Claim 48, Faulkner in view of M&M teaches all the limitations of Claim 47. Claim 48 is further rejected on the similar basis of Claim 20's rejection.

50. With respect to Claim 49, Faulkner in view of M&M teaches all the limitations of Claim 48. Claim 49 is further rejected on the similar basis of Claim 21's rejection.

51. With respect to Claim 52, Faulkner in view of M&M teaches all the limitations of Claim 47 and further teaches the device comprises the service interface and the client process (Page 53, Section 1, 1st Paragraph).

52. With respect to Claim 53, Faulkner in view of M&M teaches all the limitations of Claim 52 and further teaches the service is further configured to provide the service interface to the device (Page 53, Section 1, 1st Paragraph).

53. With respect to Claim 54, Faulkner in view of M&M teaches all the limitations of Claim 47 and further teaches the device comprises the service interface and the service (Page 53, Section 1, 1st Paragraph).

54. With respect to Claim 55, Faulkner in view of M&M teaches all the limitations of Claim 46 and further teaches the device is further configured to receive the data representation language schema; and generating the service interface for the client according to the data representation language schema (Page 53, Section 1, 1st Paragraph, and Page 58, Section 7).

55. With respect to Claim 56, Faulkner in view of M&M teaches all the limitations of Claim 55 and further teaches the device is further configured to receive the data representation language schema of the service in a service advertisement of the service (Page 58, Section 6).

56. With respect to Claim 57, Faulkner in view of M&M teaches all the limitations of Claim 46 and further teaches the data representation language is eXtensible Markup Language (XML) (Page 53-54 Section 2).

57. With respect to Claim 58, Faulkner teaches a carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement: receiving a first message from a first source to be sent to a destination (Col. 3 lines 34-46), wherein the first message is one of an ordered set of messages receivable by the destination (Col. 4 lines 58-65), verifying a sequence of the first message in the ordered set of messages receivable by the destination, sending the first message to the destination if the first message is in sequence, and not sending the first message to the destination if the first message is not in sequence (Col. 3 lines 54-63). Faulkner does not explicitly describe the communications through data representation language and the ordered set of messages and their associated sequence being

described in a data representation language schema. However, it is well known in the art that in a distributed computing environment using data representation language communications, a data representation language schema can describe any proper sequences in order to insure a service can be accessed and used as intended as shown by M&M (Page 54 1st paragraph and sections 3 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the carrier medium comprising computer program instructions disclosed by Faulkner and modify it as indicated by M&M where the program instructions are computer-executable to implement: receiving a first message in a data representation language from a first source to be sent to a destination, wherein the first message is one of an ordered set of messages receivable by the destination and described in a data representation language schema; verifying a sequence of the first message in the ordered set of messages receivable by the destination according to the data representation language schema; sending the first message to the destination if the first message is in sequence; and not sending the first message to the destination if the first message is not in sequence. One would be motivated to have this since using a data representation language schema does not confine the message sequence model to a proprietary language or a set vocabulary (Page 54, 1st 3 bullets).

58. It must be noted that Claims 59-66 are rejected based on the same rationale used in the rejection of Claim 58.

59. With respect to Claim 59, Faulkner in view of M&M teaches all the limitations of Claim 58. Claim 59 is further rejected on the similar basis of Claim 2's rejection.

60. With respect to Claim 60, Faulkner in view of M&M teaches all the limitations of Claim 58. Claim 60 is further rejected on the similar basis of Claim 4's rejection.

61. With respect to Claim 61, Faulkner in view of M&M teaches all the limitations of Claim 60 and further teaches the source is a client in the distributed computing environment and the destination is a service accessible through the distributed computing environment (Col. 3 lines 40-47 and Col. 5 lines 25-48 of Faulkner), and wherein a client device comprises the message conductor and the client (Col. 3 lines 33-47 of Faulkner).

62. With respect to Claim 62, Faulkner in view of M&M teaches all the limitations of Claim 60 and further teaches the source is a client in the distributed computing environment and the destination is a service accessible through the distributed computing environment (Col. 3 lines 40-47 and Col. 5 lines 25-48 of Faulkner), and wherein a service device comprises the message conductor and the service (Col. 3 lines 33-47 of Faulkner).

63. With respect to Claim 63, Faulkner in view of M&M teaches all the limitations of Claim 58 and further teaches the source is a client in the distributed computing environment and the destination is a service accessible through the distributed computing environment (Col. 3 lines 40-47 and Col. 5 lines 25-48 of Faulkner) said receiving a first message and said verifying a sequence are performed by, a message conductor configured to verify the sequence of messages according to the data representation language schema, and wherein said sending the first message is

performed by a message endpoint configured to send messages to the destination (Col. 3 lines 28-47 of Faulkner).

64. With respect to Claim 64, Faulkner in view of M&M teaches all the limitations of Claim 58. Claim 64 is further rejected on the similar basis of Claim 14's rejection.

65. With respect to Claim 65, Faulkner in view of M&M teaches all the limitations of Claim 58. Claim 65 is further rejected on the similar basis of Claim 15's rejection.

66. With respect to Claim 66, Faulkner in view of M&M teaches all the limitations of Claim 58. Claim 66 is further rejected on the similar basis of Claim 17's rejection.

67. With respect to Claim 67, Faulkner teaches a carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement: receiving a plurality of request messages from a first source to be sent to a destination (Col. 3 lines 54-60), wherein the plurality or request messages are an ordered set of messages receivable by the destination (Col. 3 lines 54-60), verifying a sequence of the first message in the ordered set of messages receivable by the destination (Col. 3 lines 28-33), send the first message to the destination if the first message is in sequence; and not send the first message to the destination if the first message is not in sequence (Col. 3 lines 54-63). Faulkner does not explicitly describe the communications through data representation language and the ordered set of messages and their associated sequence being described in a data representation language schema. However, it is well known in the art that in a distributed computing environment using data representation language communications, a data representation language schema can describe any proper sequences in order to insure a service can

be accessed and used as intended as shown by M&M (Page 54 1st paragraph and sections 3 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the carrier medium comprising program instructions disclosed by Faulkner and modify it as indicated by M&M wherein the program instructions are computer-executable to implement: receiving a plurality of request messages in a data representation language from a first source to be sent to a destination, wherein the plurality of request messages are an ordered set of messages receivable by the destination and described in a data representation language schema; verifying a sequence of the plurality of request messages receivable by the destination according to the data representation language schema; and sending the plurality of request messages in sequence to the destination. One would be motivated to have this since using a data representation language schema does not confine the message sequence model to a proprietary language or a set vocabulary (Page 54, 1st three bullets).

68. It must be noted that Claims 68-75 are rejected based on the same rationale used in the rejection of Claim 67.

69. With respect to Claim 68, Faulkner in view of M&M teaches all the limitations of Claim 67. Claim 68 is further rejected on the similar basis of Claim 19's rejection.

70. With respect to Claim 69, Faulkner in view of M&M teaches all the limitations of Claim 68. Claim 69 is further rejected on the similar basis of Claim 20's rejection.

71. With respect to Claim 75, Faulkner in view of M&M teaches all the limitations of Claim 67. Claim 75 is further rejected on the similar basis of Claim 30's rejection.

72. Claims 22 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faulkner in view of M&M as applied to claims 20 above, and further in view of U.S. Patent 6,216,151 by Antoun.

73. With respect to Claim 22, Faulkner in view of M&M teaches all the limitations of Claim 20 but does not explicitly disclose the results being saved and sending a reference to the stored results to the client. However, it is well known in the art that the results of a client request can be stored and later accessed through a reference as shown by Antoun (Col. 2 lines 19-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Faulkner in view of M&M and modify as indicated by Antoun such that the method further comprises storing the results data; and sending a reference to the stored results data to the client in a response message in the data representation language. One would be motivated to have this as it reduces bandwidth consumption as well as memory and processor overhead (Col. 1 line 58 to Col. 2 line 2 of Antoun).

74. With respect to Claim 50, Faulkner in view of M&N teaches all the limitations of Claim 48. Claim 50 is further rejected by Faulkner in view of M&M and in further view of Antoun for the similar reason and motivation as applied in Claim 22's rejection.

75. Claim 23-29, 51 and 70-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faulkner in view of M&M as applied to claims 20 above, and further in view of U.S. Patent 6,646,659 by Brown et al. (Brown).

76. With respect to Claim 23, Faulkner in view of M&M teaches all the limitations of Claim 20 but does not explicitly disclose the results being displayed in accordance with the data representation language schema. However it is well known in the art that a data representation language schema can include display characteristics such that a client can display data in accordance with the schema as shown by Brown (Col. 4 lines 42-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Faulkner in view of M&M and modify it as indicated by Brown such that the method further comprises displaying the results data for the client in accordance with the data representation language schema, wherein the data representation language schema further includes information describing display characteristics of the results data. One would be motivated to have this as it allows a client to have results displayed according to their own specific display characteristics (Col. 1 line 66 – Col. 2 line 16 of Brown).

77. With respect to Claim 24, Faulkner in view of M&M and in further view of Brown further teaches said receiving a plurality of request messages, said verifying a sequence of the plurality of request messages, said sending the plurality of request messages, and said displaying the results data are performed by a service interface for the client (Page 54 Section 3 and 1st Paragraph of Section 4).

78. With respect to Claim 25, Faulkner in view of M&M and in further view of Brown further teaches a client device comprises the service interface and the client (Page 53, Section 1, 1st Paragraph).

79. With respect to Claim 26, Faulkner in view of M&M and in further view of Brown further teaches the service providing the service interface to the client device (Page 53, Section 1, 1st Paragraph).

80. With respect to Claim 27, Faulkner in view of M&M and in further view of Brown further teaches a service device comprises the service interface and the service (Page 53, Section 1, 1st Paragraph).

81. With respect to Claim 28, Faulkner in view of M&M and in further view of Brown further teaches receiving the data representation language schema; and generating the service interface for the client according to the data representation language schema (Page 53, Section 1, 1st Paragraph, and Page 58, Section 7).

82. With respect to Claim 29, Faulkner in view of M&M and in further view of Brown further teaches receiving the data representation language schema of the service in a service advertisement of the service (Page 58, Section 6).

83. With respect to Claim 51, Faulkner in view of M&M teaches all the limitations of Claim 48. Claim 51 is further rejected by Faulkner in view of M&M and in further view of Brown for the similar reason and motivation as applied in Claim 23's rejection.

84. With respect to Claim 70, Faulkner in view of M&M teaches all the limitations of Claim 69. Claim 70 is further rejected by Faulkner in view of M&M and in further view of Brown for the similar reason and motivation as applied in Claim 23's rejection.

85. With respect to Claim 71, Faulkner in view of M&M and in further view of Brown further teaches said receiving a plurality of request messages, said verifying a sequence of the plurality of request messages, said sending the plurality of request

messages, and said displaying the results data are performed by a service interface for the client (Page 54 Section 3 and 1st Paragraph of Section 4).

86. With respect to Claim 72, Faulkner in view of M&M and in further view of Brown further teaches a client device comprises the service interface and the client (Page 53, Section 1, 1st Paragraph).

87. With respect to Claim 73, Faulkner in view of M&M and in further view of Brown further teaches a service device comprises the service interface and the service (Page 53, Section 1, 1st Paragraph).

88. With respect to Claim 74, Faulkner in view of M&M and in further view of Brown further teaches receiving the data representation language schema; and generating the service interface for the client according to the data representation language schema (Page 53, Section 1, 1st Paragraph, and Page 58, Section 7).

Conclusion

89. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

90. U.S. Patent 6,604,140 by Beck et al. "Service framework for computing devices" August 5, 2003

91. U.S. Patent 6,598,219 by Lau "Method and mechanism for a task oriented xml data model" July 22, 2003

92. U.S. Patent 6,594,700 by Graham et al. "System and method for implementing a universal service broker interchange mechanism." July 15, 2003

93. U.S. Patent 6,446,108 by Rosenberg et al. "Method for wide area network service location" September 3, 2002

94. U.S. Patent 6,216,158 by Luo et al. "System and method using a palm sized computer to control network devices" April 10, 2001

95. "Composable ad hoc location-based services for heterogeneous mobile clients" by Hodes and Katz, published in Wireless Networks, 5, 1999, pp.411-427

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 703-305-4868. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

David Lazaro
January 12, 2004

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER